

# Bachelor of Science Major in Biochemistry (BIOC-BS)

Suggested Sequence of Chemistry, Biology, Math, and Physics Courses:

*Students not placing in Math 118 or higher cannot start the Chemistry sequence until Math 117 is completed with a grade of C- or better. Such students are advised to enroll in first-year Chemistry courses in the summer sessions (after meeting the math requirement) in order to complete the major in four years.*

First Year					
Fall	Chemistry 160		Spring	Chemistry 180	
	Chemistry 161			Chemistry 181	
	Biology 101			Biology 102	
	Biology 111			Biology 112	
	Math 131 or 161			Math 132 or 162	

Sophomore Year					
Fall	Chemistry 240		Spring	Chemistry 260	
	Biology 282			Chemistry 242*	
	Physics 111			Biology 251	
	Physics 111L			Biology 283	
	Statistics 203			Physics 112	
		Physics 112L			

\*Chemistry 242 can be taken in either semester

Junior Year					
Fall	Chemistry 272		Spring	Chemistry 306	
	Chemistry 370			Chemistry 307	
	Chemistry 305			Chemistry 371	

Senior Year					
Fall	Chemistry 372		Spring	Chemistry 373	
	Biochemistry Elective**			Biochemistry Elective**	

**\*\*Two Biochemistry Electives are required:**

One course must be from among these Biochemistry Focus Electives:  
**CHEM 365, 385, 386, 387, 388**

and for the other you can choose from any of these Biochemistry Electives:  
**CHEM 323, 365, 385, 386, 387, 388, 396**  
**BIOL 380, 382, 388**

Chemistry 300 (Undergraduate Research) and Chemistry 380 (Seminar) are strongly recommended and required to receive Departmental Honors with graduation. Credit hours earned in Chemistry 300 and/or Chemistry 380 do not count as elective hours satisfying the BIOC degree requirement. Chemistry 361 does not count towards the BIOC-BS degree.

(This is additional information for the B.S. Major in Biochemistry)

### **BIOC-BS Foundational CHEM Classes**

<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>
Chem 160	Chemical Structure and Properties	3
Chem 161	Chemical Structure and Properties Laboratory	1
Chem 180	Chemical Reactivity I	3
Chem 181	Chemical Reactivity I Laboratory	1
Chem 240	Chemical Reactivity II	3
Chem 242	Chemical Synthesis Laboratory	2
Chem 260	Quantitative Methods in Chemistry	3
Chem 272	Analytical Chemistry Laboratory	2

### **BIOC-BS Advanced CHEM Classes**

Chem 305	Physical Chemistry for the Biological Sciences (Biochem Majors only)	3
Chem 306	Physical Biochemistry Laboratory (Biochem Majors only)	1
Chem 307	Inorganic Chemistry for Biochem. Majors	3
Chem 370	Biochemistry I (for Biochem and Chem majors)	3
Chem 371	Biochemistry II (for Biochem Majors)	3
Chem 372	Biochemistry Laboratory I (for Biochem majors)	2
Chem 373	Biochemistry Laboratory II (for Biochem Majors)	2

### **Biochemistry Electives**

Chem 323	Medicinal Chemistry	3
Chem 365*	Proteomics	3
Chem 385*	Advanced Enzyme Kinetics and Mechanisms	3
Chem 386*	Chemistry of Enzymes	3
Chem 387*	Plant Biochemistry	3
Chem 388*	Biophysical Chemistry	3
Chem 396	Special Topics in Biochemistry	3
Biol 380	Genetics and Evolution of Development	3
Biol 382	Molecular Genetics	3
Biol 388	Bioinformatics	3

\*Indicates that one of these courses must be taken to satisfy the Biochemistry Focus Elective requirement for the major.